Appl. No. 10/540,768
Amdt. dated January 26, 2009
Reply to Office Action of August 28, 2008

PATENT

REMARKS/ARGUMENTS

Claims 1-18 are pending in the application and stand rejected.

Claims 1-5 and 8-18 are objected to for informalities of the claim language.

Claim 7 is rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Claim 6 is rejected under 35 U.S.C. 112 as being indefinite.

Claims 1-2, 6-7, 10-13, and 16-17 are rejected under 35 U.S.C. 102 as being anticipated by United States Patent 6,195,751 to Caronni et a. (hereinafter "Caronni").

Claims 3-5, 8-9, 14-15, and 18 are rejected under 35 U.S.C. 103 as being unpatentable over Caronni in view of United States Patent 5,809,140 to Rubin et al. (hereinafter "Rubin").

Claims 1-3, and 6-8 are amended. Claims 4-5 and 9-14 are canceled without prejudice or disclaimer. Support for the amendments can be found throughout the application. For example, among other places, support can be found at pages 27-36 and with reference to Figs. 12-16. No new matter has been added.

As discussed below, Applicants respectfully submit that the cited references do not teach or fairly suggest each and every element as set forth in the amended claims. In particular, the cited references do not disclose at least the claimed group management means and related method steps. Reconsideration and allowance of all pending claims is respectfully requested.

Objection to the Drawings

Figs. 4-5 are objected to based on the usage of reference numeral 400 (labeled "IP Header"). The Examiner indicates that the labeling is inconsistent due to different labeling of TCP/UDP header elements 402 and 502. See, Office Action at page 2. Applicants respectfully submit that the labeling is not inconsistent with the description of Figs. 4-5 and that no change to the drawings is necessary.

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On page 9, at lines 4-6, Applicants disclose that IP Sec "includes two traffic security protocols...AH (Authentication Header) and IP encrypted payload ESP (Encapsulation Security Payload)." Figs. 4-5 depict exemplary packets according to the respective two protocols. Fig. 4 shows an AH protocol packet which includes AH Header 401 and a TCP/UDP header 402. See, Application at page 9, lines 22-26. Fig. 5 shows an ESP protocol packet which includes an ESP Header 501 and a TCP/UDP header 502. Applicants describe that one distinguishing factor of the ESP header configuration is that TCP/UDP header 502 is encrypted. See, Application at page 10, lines 18-24.

Thus, as disclosed by Applicants, the TCP/UDP headers are different for the AH protocol (402) and the ESP protocol (502) packets and these differences are separate from the IP header 400 that is common to each. Accordingly, Applicants submit that the drawings are labeled correctly and that these labels have been used consistently with the written description. Withdrawal of the objection is respectfully requested.

Claim Objections

Claims 1-5 and 8-18 are objected to based on the phrases "in a state" and "acquires information from outside." This wording has been changed by the claim amendments. Accordingly, Applicants request withdrawal of the objections.

Rejections under Section 101

Claim 7 is rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Applicants have amended claim 7 to clarify that it is directed to a computer-readable storage medium such as a hard drive. Among other places, support for this amendment can be found at pages 13-14 and with reference to Fig. 2. Withdrawal of the rejection is respectfully requested.

Rejections under Section 112

Claim 6 is rejected under 35 U.S.C. 112 as being indefinite. Applicants believe that the Examiner's comments have been addressed through the claim amendment. Withdrawal of the rejection under Section 112 is requested.

Rejections under Section 102/103

A. Claim 1

Claim 1 recites a network device comprising cipher communication means, group management means, acquisition means, and storage means. As claimed, the acquisition means are "for receiving a first external storage medium and acquiring cipher communication information from said first external storage medium." The group management means comprises "means for sending identification information of the network device, as a group participation notification, to said group of network devices when said first external storage medium is mounted and said cipher communication information is not stored in said storage means." (emphasis added). Caronni does not disclose or fairly suggest a network device with at least these features.

As cited in the Office Action, Caronni discusses key management based on multicasting. See, Office Action at page 6. Participants in a group communicate using "heartbeat signals." According to Caronni, "[t]he first participant 101 in the group observes traffic and will find that no 'heartbeat' exists and start to create its own keys." See, Caronni at col. 11, lines 56-60. Thereafter, the first participant "starts a heartbeat announcing itself and the fact that it is a key holder for the keys it just generated." See, Caronni at col. 11, lines 62-64. This process continues with each participant sending and receiving heartbeat signals until "the distributed flat implementation reaches a stable state in which heartbeat messages produced by different key holders are equal." See, Caronni at col. 12, lines 8-10.

By contrast, claim 1 recites acquisition means which "acquire cipher communication information from the first external storage medium." The claimed group management means are operative for "sending identification information of the network device...when said first external storage medium is mounted and said cipher communication information is not stored in said storage means." As noted above, Caronni's exchanges are based on the presence or absence of heartbeat signals. Accordingly, Applicants respectfully submit that Caronni does not teach or even suggest acquisition and group management means as recited in claim 1.

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B. Claims 6, 7

Claims 6 and 7 each recite limitations similar to those discussed in connection with claim 1 and each is believed allowable over Caronni for at least the reasons previously given. In particular, claims 6 and 7 each recite a group generation step and a first group participation step which are not disclosed by Caronni.

For example, claim 6 recites "a group generation step, performed when a first external storage medium is mounted at a first network device belonging to said group of network devices and said first network device does not hold cipher communication information...". Claim 6 also recites "a first group participation step, performed when the first external storage medium which stores cipher communication information is mounted at the first network device and said first network device does not hold cipher communication information...". Claim 7 includes similar limitations. Caronni does not disclose or even suggest group generation and participation steps as claimed.

C. Dependent claims

Claims 2-3, 8, and 15-18 depend, directly or indirectly, from claim 1. Each is therefore believed allowable over the cited references for at least the reason that it depends from an allowable base claim. Regarding claims 3, 8, 15, and 18, Applicants note respectfully that the Rubin reference does not cure the deficiencies of Caronni described above. Applicants respectfully request reconsideration and allowance of all pending claims.
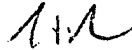
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,

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